



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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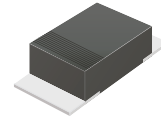
CDBMHT140-HF Thru. CDBMHT1150-HF

Reverse Voltage: 40 to 150 Volts

Forward Current: 1.0 Amp

RoHS Device

Halogen Free

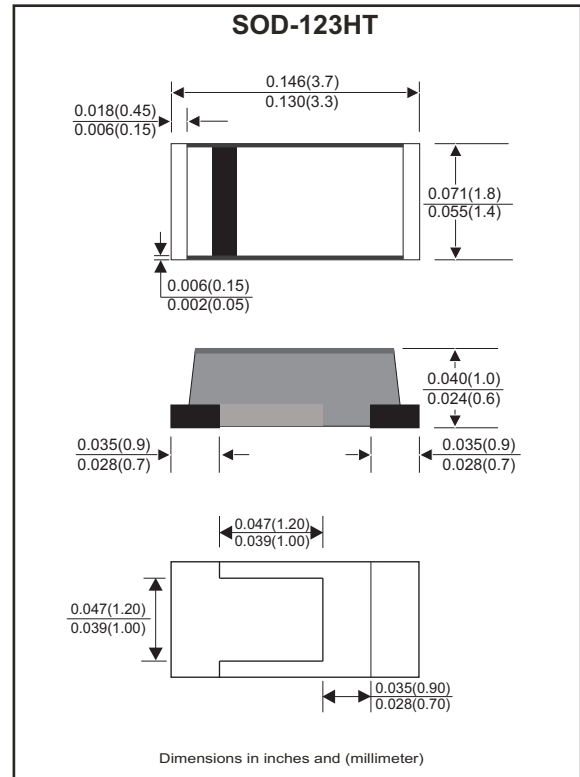


Features

- Excellent power dissipation offers better reverse leakage current and thermal resistance.
- Low profile surface mounted application in order to optimize board space.
- Low power loss, high efficiency.
- High current capability, low forward voltage drop.
- High surge capability.
- Guardring for overvoltage protection.
- Ultra high-speed switching.
- Silicon epitaxial planar chip, metal silicon junction.
- Lead-free parts meet environmental standards of MIL-STD-19500/228

Mechanical data

- Epoxy : UL94V-0 rated flame retardant.
- Case: Molded plastic, SOD-123HT/Mini SMA.
- Terminals: Solderable per MIL-STD-750, method 2026.
- Polarity: Indicated by cathode band.
- Mounting Position : Any.
- Weight: 0.011 grams approx.



Maximum Ratings and Electrical Characteristics (at $T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	CDBMHT 140-HF	CDBMHT 160-HF	CDBMHT 1100-HF	CDBMHT 1150-HF	Unit
Repetitive peak reverse voltage	V_{RRM}	40	60	100	150	V
Continuous reverse voltage	V_R	40	60	100	150	V
RMS voltage	V_{RMS}	28	42	70	105	V
Max. Forward rectified current	I_o	1.0				A
Maximum forward voltage at $I_F=1.0A$	V_F	0.50	0.70	0.85	0.92	V
Max. Forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	25				A
Max.Reverse current	$V_R=V_{RRM}$ $T_J=25^\circ\text{C}$	I_R				mA
	$V_R=V_{RRM}$ $T_J=100^\circ\text{C}$	10				
Typ. Thermal resistance	$R_{\theta JC}$	30				$^\circ\text{C}/\text{W}$
Typ. Diode Junction capacitance (Note 1)	C_J	120				pF
Operating temperature	T_J	-55 to +125	-55 to +150			$^\circ\text{C}$
Storage temperature range	T_{STG}	-65 to +175				$^\circ\text{C}$

Note : 1. F=1MHz and applied 4V DC reverse voltage

Company reserves the right to improve product design , functions and reliability without notice.

REV:C

Rating and Characteristic Curves (CDBMHT140-HF Thru. CDBMHT1150-HF)

Fig.1 - Typical Forward Current Derating Curve

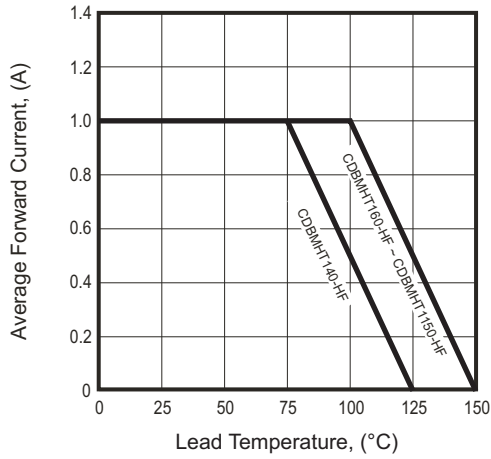


Fig.2 - Typical Forward Characteristics

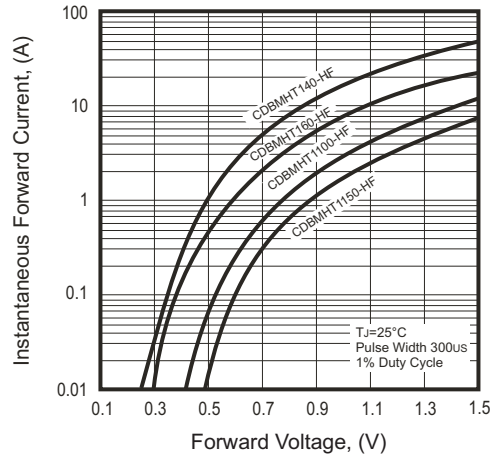


Fig.4 - Maximum Non-repetitive Forward Surge Current

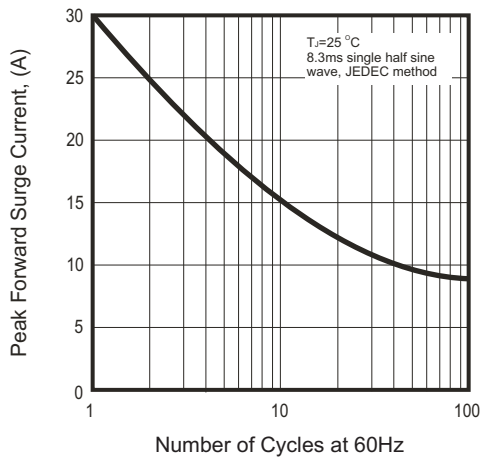


Fig.4 - Typical Junction Capacitance

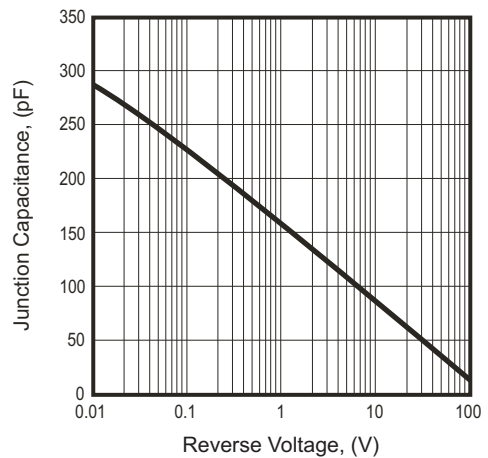
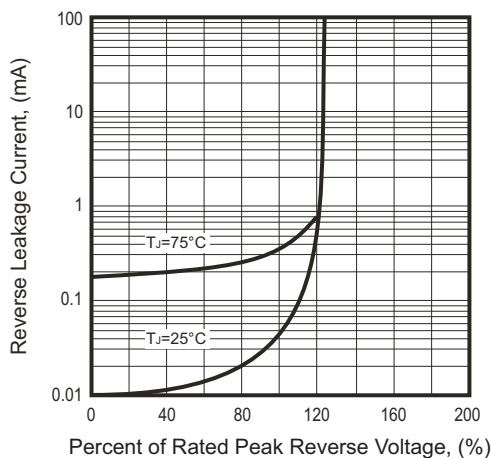
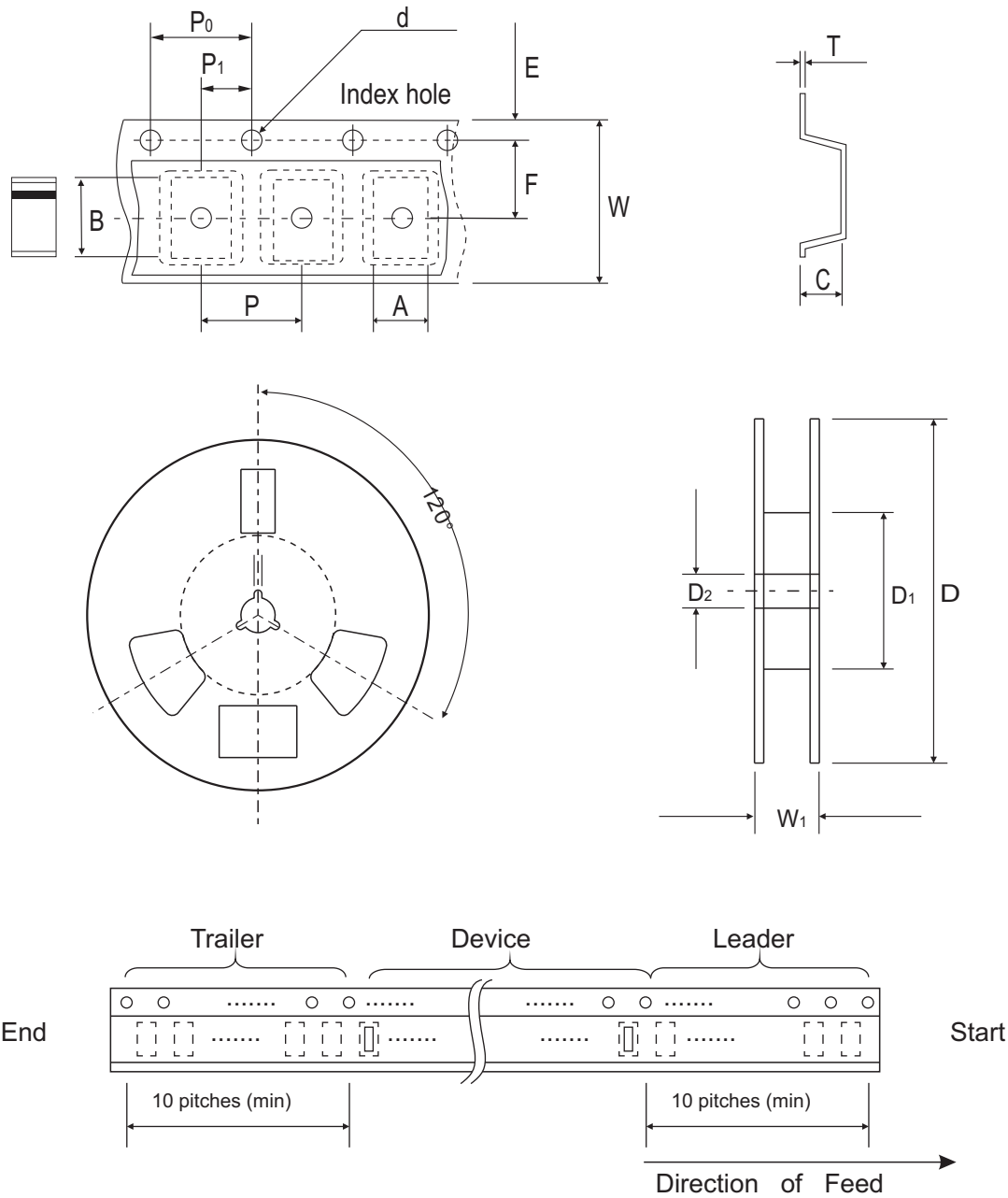


Fig.5 - Typical Reverse Characteristics



Reel Taping Specification



SOD-123HT	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	2.00 ± 0.10	3.85 ± 0.10	1.10 ± 0.10	1.50 ± 0.10	178.00 ± 2.00	62.00 (min)	13.00 ± 0.50
	(inch)	0.079 ± 0.004	0.152 ± 0.004	0.043 ± 0.004	0.059 ± 0.004	7.007 ± 0.079	2.441 (min)	0.512 ± 0.020

SOD-123HT	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.10	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	0.23 ± 0.10	8.00 ± 0.30	11.40 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.009 ± 0.04	0.315 ± 0.012	0.449 ± 0.039

Pinning information

Pin	Simplified outline	Symbol
PIN 1 Cathode PIN 2 Anode		

Marking Code

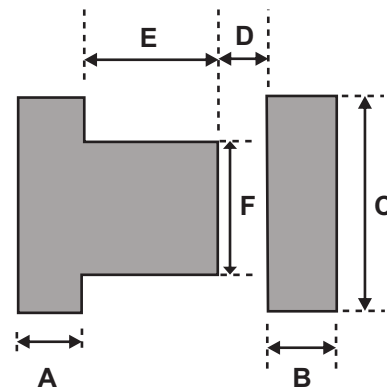
Part Number	Marking Code
CDBMHT140-HF	14
CDBMHT160-HF	16
CDBMHT1100-HF	10
CDBMHT1150-HF	115



xx / xxx = Product type marking code

Suggested PAD Layout

SIZE	Mini-SMA/SOD-123HT	
	(mm)	(inch)
A	0.90	0.035
B	0.90	0.035
C	1.90	0.075
D	0.70	0.028
E	1.10	0.043
F	1.20	0.047



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
SOD-123HT	3,000	7